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ABSTRACT

A study investigated the personality type preferences of people who voluntarily chose to participate in a structured, field-based, outdoor education program. The Myers-Briggs Type Indicator (MBTI) was administered to 87 participants prior to beginning a 10-day Wilderness Education Association outdoor leadership trip. Participants were 18-46 years old, had completed at least 1 year of college, and had a wide range of outdoor experience. The MBTI generates 16 possible personality types based on four bipolar dimensions: extroversion-introversion (preference for interpersonal interaction versus solitude and reflection); sensing-intuiting (as preferred means of taking in information); thinking-feeling (as the preferred basis for decision making); and judgment-perception (preference for closure and structure versus flexibility and spontaneity). Compared to the general population, the outdoor participants contained significantly higher proportions of introverted types and intuitive types but did not differ significantly on the other two dimensions. Implications of various personality types are discussed with regard to the appeal of outdoor experiences, the facilitation of group cooperation, and the effectiveness of outdoor teachers or leaders. Contains 26 references. (SV)

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Historically, outdoor educational experiences have been provided for the purpose of teaching in, about and for the outdoors, to face challenges of self and the environment, and for various therapeutic purposes. While the complexities and interactions of alternative forms of education are many, there has been an increase in the popularity of adventure education for people of all ages. Adventure education is rooted in Kurt Hahn's work (Smith, Roland, Haven, & Hoyt, 1992) of developing the individual through various physical challenges. The Outward Bound schools are based on Hahn's educational practices and state, "The aim of education is to impel young people into value-forming experiences" (p. 9). Project Adventure and other programs aimed at leadership development have all stemmed from the idea of letting adventure teach one about oneself, how one relates to others in a group and other transferable lessons, such as decision making and values (Smith, 1992). For the last two decades, the adventure education approach has become a popular attraction for a greater number of people wanting to participate in outdoor experiences. Often, the modern outdoor participant has little personal experience with the natural environment; and, therefore, seeks a group session, structured for success with someone who serves as teacher, protector or manager of the experience (McAvoy, 1987). Along with the increase of providing structured programs, came variety in types of people seeking outdoor experiences. This variety has led researchers in outdoor education on a quest to better understand the characteristics of the participants.

Studies have shown that several characteristics relate to how an individual approaches and participates in the outdoors. Many studies have investigated how various social and psychological states such as creative flow (Csikszentmihalyi, 1975), risk (Ewert, 1985), self efficacy (Bandura, 1977, Harmon &Templin, 1987), self concept (Bacon, 1988), self actualization (Maslow, 1962), fear (Ewert, 1985), and competence (Allen, 1980) serve as motivators for participation in adventure activities. Other research has looked at how various groups respond to an outdoor experience. Women tend to experience the outdoors differently than men (Kiewa, 1994; Mitten, 1994; Warren, 1985); novices differ from those more experienced (Ewert, 1989); ethnic background may be an accessibility and role model issue (Ashley, 1990); and older adults differ from other adults (Sugarman, 1990) or school children (Moore, 1990). Phipps (1985) used Jungian psychology to make a case for stress management using wilderness experiences. He posited that there may be an unconscious lure of the wilderness in which to explore the inner self. By using archetypes an understanding of self may become more apparent.

There remains some question about how to link what is known about individuals to the planning and implementation of group structured outdoor programs. One theory that may

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illuminate the program planning and implementation processes in terms of collective differences is Jungian personality theory.

For Jung (1923, 1971), there were essential ways that people become aware of things and come to some conclusion about their awareness. These two processes, becoming aware (perception) and making decisions (judgment), are further defined as bipolar dimensions producing four functions of human personality (Spoto, 1995). One may prefer to become aware of things in his/her own world by sensing concrete information (sensor) or by intuiting more abstract information (intuition). The decision making function is viewed as a rational decision using logic (thinking) or a more personal related way (feeling). It is believed that these four functions of sensing, intuition, thinking and feeling can serve as broad generalizations for planning and implementing group structured outdoor programs.

Structured outdoor educational trips create an intense experience by developing a closed community where each decision made affects everyone in the group. The very nature of being in unfamiliar terrain with unfamiliar people offers both opportunities for personal growth and opportunities for conflict and confusion. It is assumed that personality type preferences play a role in how people respond to an unique outdoor environment. Membership in an outdoor group can be a positive experience if members understand and appreciate each other's uniqueness. Thus, this study was designed help us better understand the people who seek an organized group experience in the outdoor environment.

BACKGROUND

Understanding preferences is important to teachers/leaders and other professionals who desire to be more effective in their work to meet individual needs in group settings. Personality type preference is defined as every individual's pattern of mental habits. There are no right or wrong patterns, nor does one's preference likely change. By examining a person's patterns or ways of taking in and using information, we generalize about certain "type" similarities.

The study of personality types is grounded in Jung's (1923, 1971) theory that identified patterns of behavior used as indicators of psychological processes. Typology indicates various patterns in the ways that people prefer to perceive information and make judgments. He characterized mental activity into two perception processes (sensing and intuition) and two judgment processes (thinking and feeling). Perception processes are how information comes into consciousness. Information is used (sorted, evaluated, analyzed) by the judgment processes (Lawrence, 1993).

The purpose of this study was to investigate the personality type preferences represented by those who have chosen to participate in a structured, field based, outdoor education program. Research has explored the prevalent types of various professions including teachers, engineers, dancers, physicians, and business persons (Myers, 1991). The typology has not yet been specifically identified for outdoor participants. Furthermore, a comparison of how outdoor participants differ from other groups in the general population becomes a secondary question in this study.

METHOD

This study is a description of people who voluntarily sought a guided, outdoor educational experience. For this study, 87 participants were administered the *Myers-Briggs Type Indicator* (MBTI) prior to starting a ten day Wilderness Education Association outdoor leadership trip conducted in New Mexico in 1994 and 1995. The participants ranged in age from 18 to 46. There were 37 female and 50 male subjects. All subjects had at least one year of college. The outdoor experiences of the sample ranged from no experience to multiple short excursions averaging 9 days in length. About one third of the subjects were affiliated with the Boy Scouts of America as their reference for outdoor participation.

The *MBTI* is a well known assessment tool and is easy to administer. Isabel Briggs-Myers and her mother Katherine Briggs developed the paper-pencil test to identify four dimensions of

personality type as previously identified by Jung. They are: 1) Extroversion-Introversion; 2) Sensing-Intuition; 3) Thinking-Feeling; and, 4) Judgment-Perception (Myers, 1991). Sixteen possible types can be determined with different combinations of these four dimensions of personality. Extroversion-Introversion measures how much one prefers the interaction with other people and external ideas from a variety of situations or the degree to which one prefers to work alone, to contemplate and reflect internal ideas. The Sensing and Intuition scales indicate how information is taken in by an individual. The Sensing scale indicates a preference for concrete information and facts, while the Intuition scale describes one's preference for an abstraction of possibilities and relationships. The Thinking-Feeling scales describe how one makes decisions. One who prefers thinking uses an objective, impersonal process of logic, whereas one who refers feeling is one who considers relationships and personal values. The Judgment-Perception scales reveal how people views their world. The judger tends to demonstrate a need for closure, structure and order. The perceiver demonstrates a need for resistance to closure, flexibility, and spontaneity.

RESULTS

Table 1 shows the frequency of each personality type as found in the study. There is a range of type and all types are represented. Personality types are recorded with capital letters symbolizing the corresponding preference: E = extroversion; I = introversion; S = sensing; N = intuition; T = thinking; F = feeling; J = judging; and P = perceiving. There are sixteen possible personality types derived from the four preference dimensions. Myers and Myers (1990) have developed a formula to compare the degree of self selection by any personality type in any sample. The resultant self selection ratio (SSR) is the percentage frequency of that personality type in the sample divided by its percentage frequency in the appropriate base population (Myers & Myers, 1990). The base population for this study was the general population for both male and female adults as predicted by Keirsey and Bates (1978). The lower the SSR, the greater the similarity between the sample group and the general population prediction. Conversely, the higher the SSR the more the two groups differ in type distribution. A significant self selection is indicated by a SSR of 1.0 or greater.

In this study there were overwhelmingly high SSRs in the type categories of INTP (SSR=11.0), INFP (SSR=9.0), INTJ (SSR=8.0), and INFJ (SSR=6.0). These types have particularly low representations in the general population, which may partially account for the high SSRs. Other significant self selection ratios were demonstrated for ENFP (2.0), ENTP (1.6), ENTJ (1.6), ISFP (1.4), and ISTJ (1.3).

Table 2 displays the comparison of the outdoor participant sample to the general population prediction by Keirsey and Bates (1978). The largest concentration relative to what is expected in the general population falls into introversion and intuition categories. It appears that people interested in the outdoors are different than the general population in the extroversion-introversion scale and the sensing-intuition scale. A chi-square value of 18.09 is significant at the .05 level for extroversion and introversion. The sensing-intuition data revealed a chi-square value of 31.6, which is significant at the .05 level. The sensing-thinking scale revealed a chi square of .29, which was not significant. Similarly, the judging-perceiving scale indicated a chi-square of .27, which also was not significant. Seventy-five percent of the general population is categorized as extroverted and 25% is introverted (Keirsey & Bates, 1978). Results of this sample showed 44% and 56% respectively. While one would expect more extroverts to choose a group setting this study revealed the contrary.

Similarly, 75% of the general population acquires information through the sensing process. Whereas, our results indicate only 32% of the sampled outdoor participants prefer the sensing function. This means that the sampled outdoor participants may approach the experience by incorporating many dimensions and aspects of the total experience, rather than the

Table 1
Comparison of Subjects to Adult Base Population and Self Selection Ratios

TYPE*	% OF GEN. POP.	NUMBER	% OF SUBJECTS	SSR**
ISTJ	6	7	8	1.3
ISFJ	6	2	2	.3
ISTP	5	3	3	.6
ISFP	5	6	7	1.4
ESTP	13	4	4	.3
ESFP	15	2	2	.1
ESTJ	13	3	3	.2
ESFJ	13	3	3	.2
INFJ	1	5	6	6.0
INTJ	1	7	8	8.0
INFP	1	8	9	9.0
INTP	1	10	11	11.0
ENFP	5	9	10	2.0
ENTP	5	7	8	1.6
ENFJ	5	4	4	.8
ENTJ	5	7	8	1.6

Notes: I = Introversion, E= Extroversion, S= Sensing, N= Intuitive, T = Thinking, F = Feeling, J = Judging, P = Perceiving.
** Self Selection Ratio (SSR)= Incidence of that type in the sample divided by its incidence in the appropriate base population (Myers, 1990). Values above 1.00 show high positive self selection.

specific, concrete and individual elements of the experience. The other dimensions of Thinking-Feeling and Judgment-Perception indicate similar patterns with general population expectations.

DISCUSSION

When discussing personality preference, ways of taking in and using information are often separated. The Sensing-Intuition (S/N) and the Thinking-Feeling scale (T/F) provide this important insight. These combine in ways that help further determine a temperament (Keirsey & Bates, 1978) or learning style (Lawrence, 1993). For instance, this study found a high number of Intuitive- Thinkers, NTs, (36%) and Intuitive-Feelers, NFs, (30%) seeking the outdoors. Both of these intuitive types are a minority in the general population.

Intuitive-Thinkers (NTs) have a logical way of processing information making them effective in groups. They have high standards for themselves and seek to understand, control, and predict all that is around them—people and nature. They are self-critical and mastery is important. A structured outdoor experience provides an opportunity to learn about themselves and nature in a psychologically safe community. Achievement of physical standards may be appealing for those who demonstrate this type.

Table 2
Statistical Comparison of Sample to General Population

	Extroversion		Introversion	
	f	%	*f*	%
General population (expected)	65.25	75	21.75	25
Outdoor subjects (observed)	***39***	***44***	***48***	***56***
$\chi^2(1, 87) = 18.09, p < .05$				
	Sensing		**Intuitive**	
	f	%	*f*	%
General population (expected)	65.25	75	21.75	25
Outdoor subjects (observed)	28	32	59	68
$\chi^2(1, 87) = 31.6, p < .05$				
	Thinking		**Feeling**	
	f	%	*f*	%
General population (expected)	43.5	50	43.5	50
Outdoor subjects (observed)	46	53	39	47
$\chi^2(1, 87) = .29, p > .05$				
	Judging		**Perceiving**	
	f	%	*f*	%
General population (expected)	43.5	50	43.5	50
Outdoor subjects (observed)	41	45	48	55
$\chi^2(1, N = 87) = .27, p > .05$				

The outdoors may be a way of life for NTs because they have difficulty in separating work and play (Keirsey & Bates, 1978).

The Intuitive-Feelers (NFs) are generally non judgmental, accepting, genuine, committed to their own growth and that of others. NFs seek growth and development of personal identity; integrity is a prime value. Outdoor experiences may be particularly attractive to people with the NF preferences because the innate personal challenges and the opportunity for the collective experience in the outdoor environment.

In outdoor educational settings, group cooperation is essential to meet the goals of the programs. This is known as positive interdependence. The goal of positive interdependence (Johnson & Johnson, 1994) may be facilitated by the personality preferences exhibited by participants who are intuitive and either thinking or feeling. Johnson and Johnson (1994) list four elements related to positive interdependence: 1) positive relationships (Feelers); 2) effort to achieve common goals (Thinkers), 3) positive adjustment (Thinkers), and 4) social competence (Feelers). Positive relationships are characteristic of feeling types as is social competence; whereas, the effort to achieve common goals and positive adjustment would be characteristics of thinking types.

The over-representation of Introverts in the results of this study indicate that Introverted types, typically represented by only one quarter of the general population, tend to seek outdoor experiences. Perhaps the solitary, contemplative experience of the outdoors offers opportunity where they absorb information and seek to understand relationships. As good problem solvers, introverts are able to adapt to the social situations presented in the outdoor experience. The outdoor environment appears to have an inherent attraction for them.

Personality type theory also has implications for teachers/leaders and their effectiveness. In structured group experiences the leader may pay attention to individual needs for alone time or to allow participants to develop individual goals which fit within the framework of the group goals. There are many opportunities in group courses to be alone in activity (i.e., hiking along a trail is both a personal reflective time as well as a group activity). Instructors may temper fact within the less scientific framework of the outdoors. Information about personality types can provide the instructor with a better understanding of people in order to deliver curriculum for effective teaching. Participants who voluntarily seek a structured outdoor program seem to have some unusual and common characteristics which value both knowledge and relationships. Personality type should not be the only indicator for leaders to work with individuals in a group. Rather it should be used as one of many measures of a participant. Outdoor participants can benefit from understanding the personality preferences as a useful strategy in providing a better understanding of their own potential and ways to find their strengths and interests in outdoor activities. More research related to type and group dynamics, experience and nature of trip needs to be completed. Furthermore, research is needed to identify personality types for independent outdoor participants, participants of other kinds of structured programs, small group use of the outdoors.

More information is needed in understanding the people who want structured outdoor experiences in order to best meet their needs. Further research might investigate how instructor personality preferences affect group interaction? Would complementary or matching preference facilitate teamwork or satisfaction with goal attainment? How does personality preference relate to technical and other camp skills? What are the characteristics of other people in the outdoors, specifically those not in organized groups? How do personality preferenees relate to group process or conflict in outdoor experiences? This study provides a foundation to building such understanding about participants in outdoor educational trips.

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